

# 2008-2009 Annual Report

## Waste Tire Management Program

Fostering a Cleaner Environment by Assisting Communities and  
Businesses in Indiana through the Waste Tire Management Program

*Analysis of FY2008 and FY2009*

January 2009



Indiana Department of Environmental Management  
Office of Pollution Prevention and Technical Assistance

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# The Waste Tire Management Fund

Indiana Code (IC) 13-20-13-8 establishes the Waste Tire Management Fund (WTMF) to support Indiana's Waste Tire Management Program. Utilization of the WTMF ranges from the remediation and removal of improperly disposed waste tires, promotion of the utilization of processed tire products, and the provision of financial assistance to reduce waste tire generation.

Table 1 represents an overview of the revenues and expenditures administered through the fund for Fiscal Years 2007 through 2009.

| Table 1: Revenues and Expenditures<br>Waste Tire Management Fund  |             |                |               |
|---|-------------|----------------|---------------|
| Fiscal Year   | Fee Revenue | IDEM Grants    | IDEM Cleanups |
| 2007  | \$1,902,858 | \$379,212      | \$288,000     |
| 2008*   | \$1,596,240 | \$292,644      | \$0           |
| 2009**  | \$714,506   | \$1,000,000.00 | \$592,705     |
| *Transfer of WTMF management from the Office of Lieutenant Governor to IDEM (July 1, 2007)<br>**Based on July 1, 2008 through December 31, 2008 |             |                |               |

*Special notice: Currently, as all levels of government around the country are managing budget reductions, the state of Indiana is committed to keeping all essential governmental services running smoothly and effectively during these difficult times. Therefore, the Indiana Department of Environmental Management is temporarily suspending state-funded grant and loan programs for business and local government recycling and pollution prevention projects, including the Waste Tire Management Grant Program, until further notice.*

## 2008 Spotlight

- IDEM's Office of Land Quality reported that waste tire transporters collected more than seven million tires in 2008.
- 4,207,718 waste tires will be diverted from Indiana landfills through IDEM's Waste Tire Management Grant Program (WTMGP) FY2009 awards.
- For FY2009, the WTMGP awarded \$1 million through its grants, and was able to leverage a \$2,368,122 overall investment from Indiana cities, towns, counties, school corporations and businesses for the use of waste tires in legitimate beneficial reuse projects.
- Indiana University completes its comprehensive study of the Waste Tire Management Program (WTMP), supported by a grant awarded from the WTMGP.

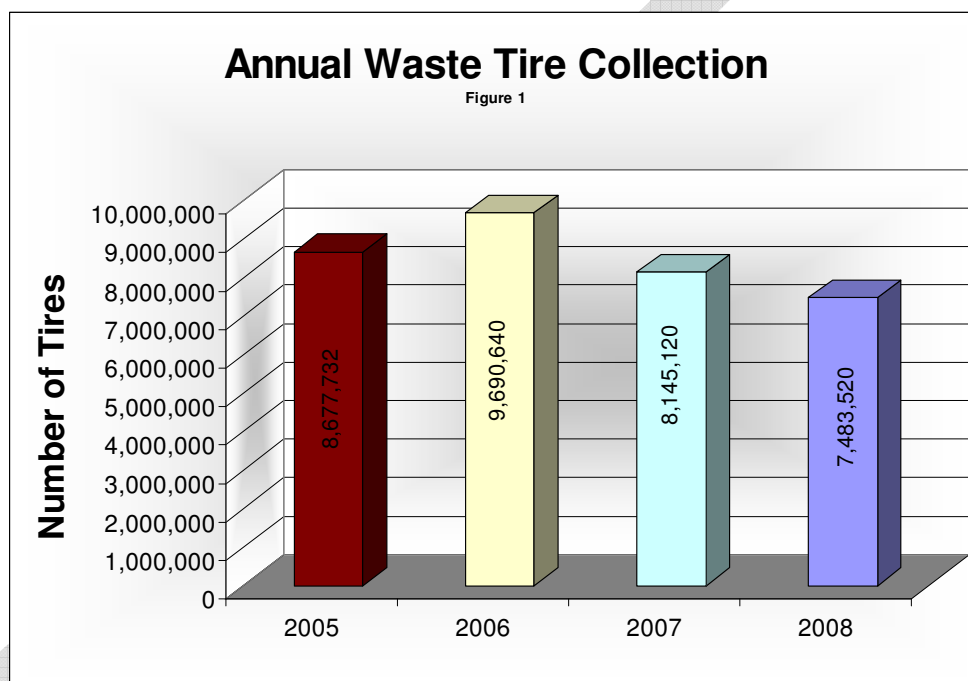
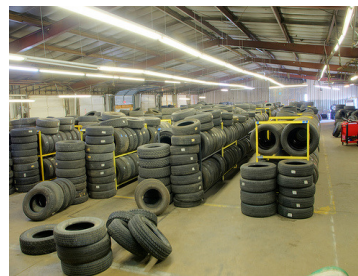


The following sections of this report will detail the management programs supported by this fund, including monetary incentives and public education to promote the environmentally sound use of tire-derived products, in addition to the expenditures involved with compliance regulations and remediation projects. This report is an effort to capture various aspects of the Waste Tire Management Program related to the management of Indiana waste tires.

# Waste Tire Management Program

The IDEM Office of Land Quality (OLQ) is responsible for regulating waste tire management operations across the state. Indiana Administrative Code (IAC) 329 15 provides the framework for monitoring the 75 transporters, 23 processors and 5 storage facilities maintaining waste tire program certificates of registration.

For 2008, waste tire activities reported by 23 processors reflect that more than 7 million passenger tire equivalents (PTEs) were received.



## Waste Tire Transporters



Indiana waste tire transporters are required to pay a \$25 application fee for a 5 year registration in addition to an annual \$25 operating fee.

329 IAC 15-4 requires transporters to annually report the number of waste tires handled and to maintain financial assurance in the amount of \$10,000.

A list of transporters currently registered with IDEM may be found online at: [http://www.in.gov/idem/files/wt\\_transporters.pdf](http://www.in.gov/idem/files/wt_transporters.pdf).

## Waste Tire Processors and Storage Facilities

The application fee for a 5 year waste tire processing registration is \$200. There is no annual fee for waste tire processing facilities.

329 IAC 15-3 requires annual reporting of the number of tires handled, maintaining records of tire sources, and preparation of a facility contingency plan for dealing with emergencies. Processing



operations are required to drain water from tires on the day they are received and process them within seven days to prevent water collection and the threat of mosquitoes spreading disease.

In 2008, five processing operations also registered their facilities as storage sites which require an additional \$500 application fee, \$500 annual operating fee and posting a site closure bond. This financial assurance is based on the cost to cleanup the volume of material stored on the site. The operating allowance for tire storage is 1,000 tires outside or 2,000 tires inside.

A list of waste tire processors and storage facilities currently registered may be found at: [http://www.in.gov/idem/files/wt\\_processors\\_and\\_storage.pdf](http://www.in.gov/idem/files/wt_processors_and_storage.pdf).

Copies of the registration materials for transporters, processors, and storage facilities, as well as annual reporting and manifest forms may be obtained online at: <http://www.in.gov/idem/5124.htm>.

## ***Compliance and Enforcement***



IDEM's enforcement staff opened 2 new cases regarding waste tire violations in 2008. The objective of enforcement actions initiated by OLQ is to correct violations and assure all facilities are complying with the same standards. Enforcement actions are also utilized to facilitate clean up of tire dumps that represent a threat to human health and the environment. For a listing of common waste tire violations subject to enforcement action in 2008 please refer to Appendix A.

In 2008, IDEM contractors completed cleanups of the six tire sites totaling \$592,705, at the following locations; identified in Table 3:

| Table 3: 2008 Waste Tire Pile Cleanups |              |            |
|--|--------------|------------|
| Cleanup Site                           | City         | County     |
| Greendale Greer                        | Greendale    | Dearborn   |
| Steven Jeans                           | South Bend   | St. Joseph |
| J & B Recycling                        | Hillsdale    | Vermillion |
| Gary Tire                              | Martinsville | Morgan     |
| Bernard                                | Rossville    | Clinton    |
| J Street Ventures                      | Richmond     | Wayne      |



OLQ estimates that since the creation of the waste tire management program, approximately 7.5 million waste tires have been removed from stockpiles with about 4.5 million whole tires, shreds and fire debris remaining at current or previously registered facilities that face enforcement action. Just over 800,000 more have been inventoried for future removal at 30 tire dump sites across the state.

Major sources of waste tires are subject to OLQ compliance inspections for proper waste tire management practices. These include vehicle maintenance facilities, transportation companies, new and used tire dealers, tire retreading plants, and auto salvage operations.

Although waste tire generators or sources are not required to register with OLQ, IC 13-20-14 sets out waste tire management requirements for specific operations.

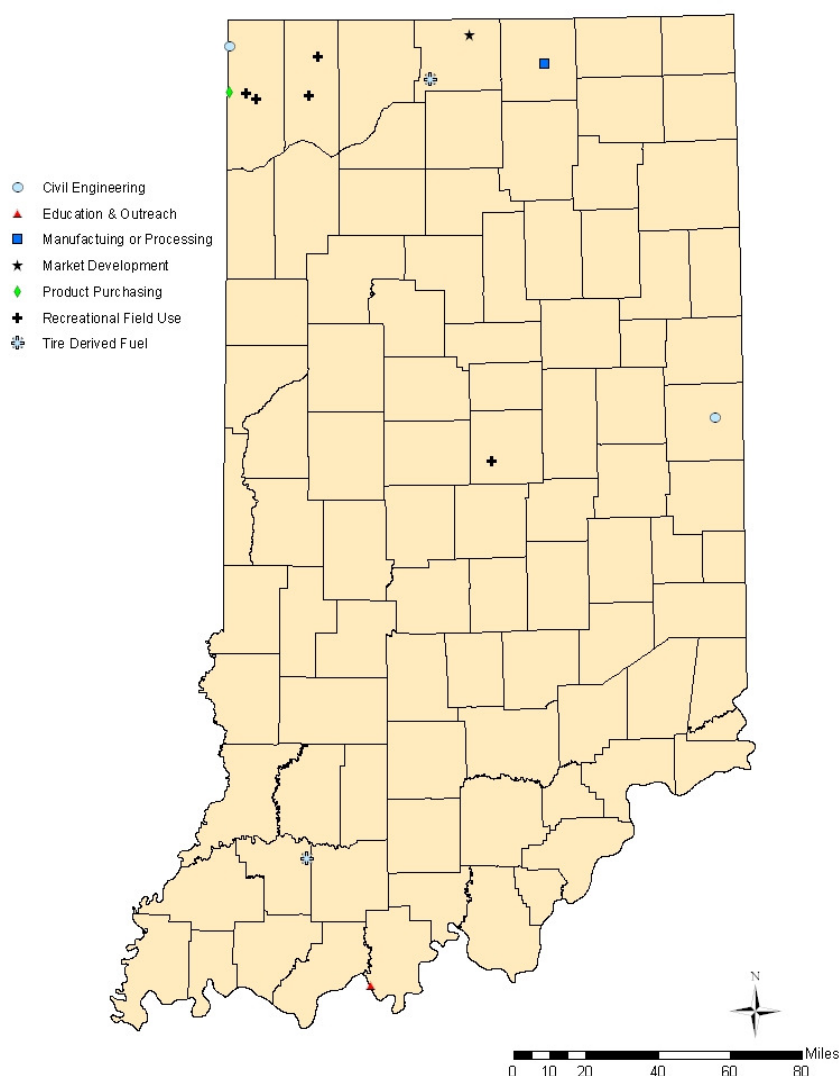
New tire retailers are required to accept from the consumer the same number of waste tires replaced by new tires purchased. A handling charge is routinely collected by the dealer for this service, in addition to the \$0.25 new tire fee. All sources of waste tires are responsible for delivery of their tires to an approved processing or disposal facility. This is the main service provided by registered waste tire transporters. Additionally, all major sources of waste tires are required to maintain records, such as copies of waste tire manifests, to document proper waste tire management.

## Grant Opportunities

IDEM's Office of Pollution Prevention and Technical Assistance (OPPTA) distributes consumer education information to encourage proper tire maintenance and longer tire life, in addition to administering grants that support the sustainable development of waste tire markets.

Waste tire grants were offered by OPPTA to eligible businesses, schools, not-for-profits, and local units of government for projects in FY2008 and FY2009, in the following categories and highlighted in Figure 2:

### WTMGP Grant Recipients – Figure 2



#### **Tire Derived Fuel:**

projects utilizing waste tires as the main or supplemental energy source for fuel or creating fuel from waste tires.

#### **Recreational Field**

**Use:** demonstrating ground tire rubber products used for improved performance of athletic fields, sports tracks and community hiking/biking trails.

#### **Market Development:**

expanding an existing market or establish a new market to utilize waste tires in a process or within an end product.

**Civil Engineering:** utilizing processed waste tire shreds or chips as part of an engineered design following the ASTM Standard D 6270-98(2004) for use of waste tires in civil engineering applications including road embankments or bridge abutment back fill.

**Product Purchasing:** purchasing products derived from waste tire material that promotes the market for its use as a replacement to traditional materials.

**Education and Outreach:** promoting waste reduction and an understanding of opportunities and compliance information for tire recycling for consumers and tire retailers.

**Manufacturing or Processing:** purchasing of equipment or modification to existing equipment by facilities to manufacture value-added products derived from waste tire material.

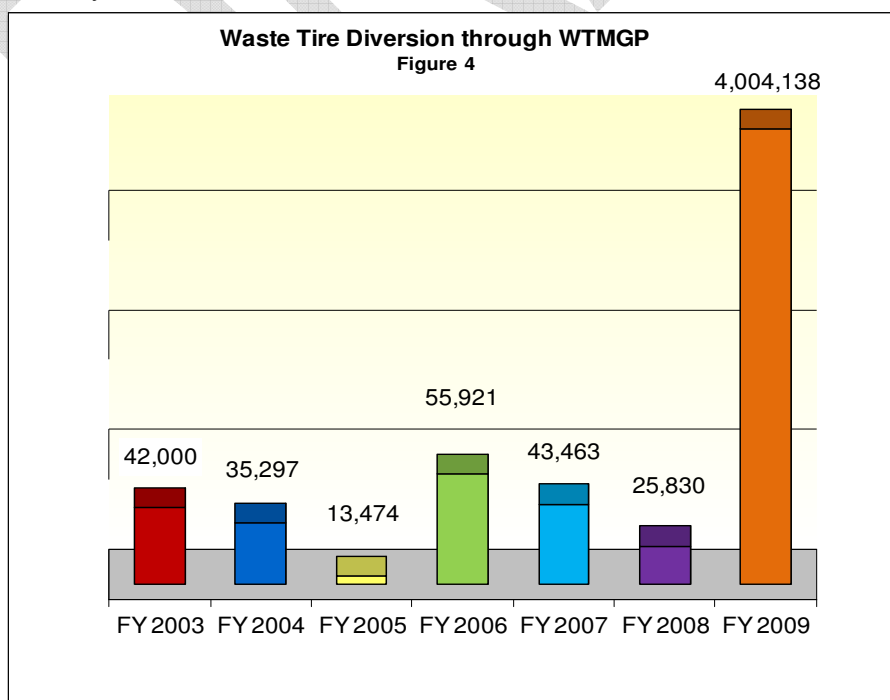
The assortment of projects for the FY2009 projects included all eligible grant categories such as Tire Derived Fuel, Recreational Field Use, Market Development, Civil Engineering, Product Purchasing, Education and Outreach, Manufacturing or Processing, demonstrating both the environmental and economic impact on Indiana communities and businesses.



Figure 3, located in Appendix B emphasizes the success of the Waste Tire Management Grant Program since its transfer from the Office of the Lieutenant Governor in 2007, and illustrates a history of funding awarded for different project and market categories.

Eight waste tire projects were approved for grant funding in FY2008; they are summarized in Table 4, located in Appendix C. While, thirteen waste tire projects were approved for grant funding in FY2009; and summarized in Table 5, in Appendix D.

Providing incentives through grant funds for demonstration projects has resulted in direct benefits to a variety of entities, while offering an example of new waste tire products or processes. The response serves as a demonstration for future entities to implement similar projects and methodology, in addition to a successful program and exceeding the goals to effectively manage Indiana waste tires while developing sustainable markets. Figure 4 emphasizes the annual diversion of Indiana waste tires through the grant program over the years.



## Grant Highlights

FY2009, proved to be an essential indication of the WTMGP's impact and its importance on Indiana communities and businesses. In 2008, OPPTA received an overwhelming response to the call for innovative projects that demonstrate the sustainable benefits of new and innovative ways to reduce, reuse, or recycle Indiana waste tires. The tremendous response of twenty-one applications not only demonstrates the interest in waste tire diversion, but the projects themselves indicate the need to address the waste tire issue here in Indiana. The myriad of projects proposed, have the potential to divert 9,151,685 Indiana waste tires from Indiana landfills. These projects are an investment by Indiana cities, towns, counties, school corporations and businesses and serve as a model for other industries and communities.

### The Environmental and Economic Impacts



The Waste Tire Management Grant Program is able to foster a cleaner environment by assisting communities and businesses to properly manage waste tires in Indiana, in addition to providing the foundation for economic longevity within Indiana.

While the grant program was able to award a total of \$1 million in FY09 for 13 projects, the overall request for grant funding assistance totaled \$2,193,153. These projects will leverage \$2,368,122, divert more than 4 million Indiana waste tires and create additional jobs and provide new sources of energy.

### **Grant Project Highlights**

#### Consolidated Grain and Barge, Co. (CGB) (Mt. Vernon, Posey County):

CGB is firmly committed to the reduction of the burning of fossil fuels and the research necessary to advance the use of biomass energy. In 2008, the company was awarded a grant to install a system that will allow the facility to burn a blend of wood and waste tires. The system replaced the use of natural gas and allowed for \$3 million in savings per year for the company. The current fuel blend consists of 20% waste tire, but due to the overwhelming success of the project, the company is seeking alternative methods to increase the use of waste tires in its boilers. Its current operations allow them to utilize 180,000 waste tires per year.



#### Central Indiana Tire and Retreading Inc. (Indianapolis, Marion County):



Central IN Tire and Retreading, Inc., received grant funds to purchase equipment to assist in its current operations of retreading commercial tires. Retreading allows the tires to have additional life and prevents landfills from being inundated with additional tires. It takes over 22 gallons of crude oil to manufacture an average commercial tire, while it takes only 7 gallons to produce a retread tire. The grant has allowed the small Indiana company to increase its production time and visibility in the industry and reuse 15,500 waste tires per year.

Eco-Blok, LLC (South Bend, St. Joseph County): This company has been quite successful in its native area of California and in partnering with the state's environmental board. The grant program was able to provide Eco-Blok, LLC, the opportunity to develop a Midwest market for its tire-derived products through the partnership of an Indiana molding company. The partnership that developed because of the grant program exemplifies the need for environmental sustainability through economic sensibility and an estimated 250,000 in waste tire diversion.



Indiana University (Bloomington, Monroe County): In 2008, a WTMP grant awarded to the Bloomington campus of Indiana University, to conduct a research project that investigated the waste tire policies in Indiana was completed. Professor Dr. Evan Ringquist, with the School of Public and Environmental Affairs at Indiana University in Bloomington spearheaded the research project. After completing the comprehensive study, he presented his findings and "Waste Tire Policy Recommendations for Indiana." A copy of this report can be obtained by contacting OPPTA.

## Markets for Processed Tires

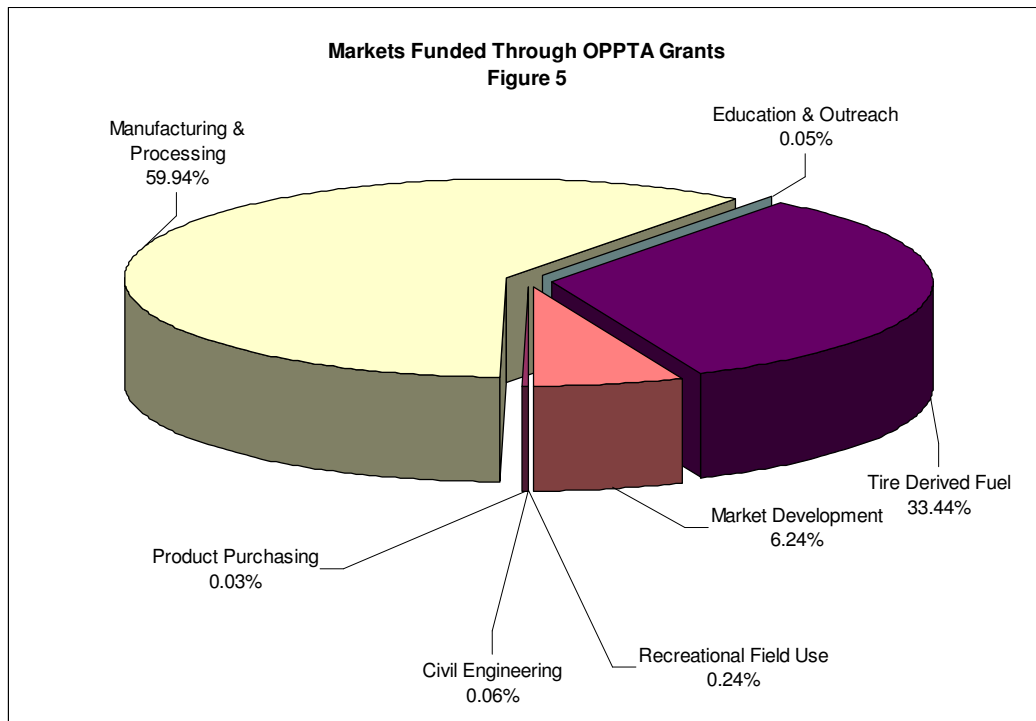
The emphasis to create a market for Indiana waste tires has seen an increase during the past decade. However, IDEM is still challenged with managing waste tires within sustainable markets.

- Landfill
- Alternative daily cover
- Reuse that incorporates ground rubber in rubber modified asphalt
- Civil engineering applications as tire chip drainage aggregate and light weight fill
- Tire-derived fuel

Figure 5 emphasizes the end markets targeted by OPPTA's grant funding process and its potential to divert Indiana waste tires, which include:

- Tire Derived Fuel
- Recreational Field Use
- Market Development
- Civil Engineering
- Product Purchasing
- Education & Outreach
- Manufacturing and Processing





## Summary

IDEM has established multiple goals to address waste tire management problems in Indiana. Those goals are to promote demand for the most valuable tire-derived products, clean up illegal tire piles, and provide proactive compliance assistance to the industry. IDEM is committed to:

- Encouraging the development of viable end markets for waste tires.
- Identifying and encouraging the purchase of tire-derived products.
- Working with other Indiana agencies to promote additional testing for applications and establishing standards supporting the use of tire materials in projects.
- Evaluating existing approaches, authorities, and efforts to properly manage waste tires and continue the efforts for waste tire cleanup.
- Working with prospective Indiana companies and institutions to explore opportunities to utilize waste tires in an environmentally sound manner to recover resources or energy.
- Continuing outreach efforts to waste tire processors, transporters, and storage site operators to educate them on compliance issues and best management practices.

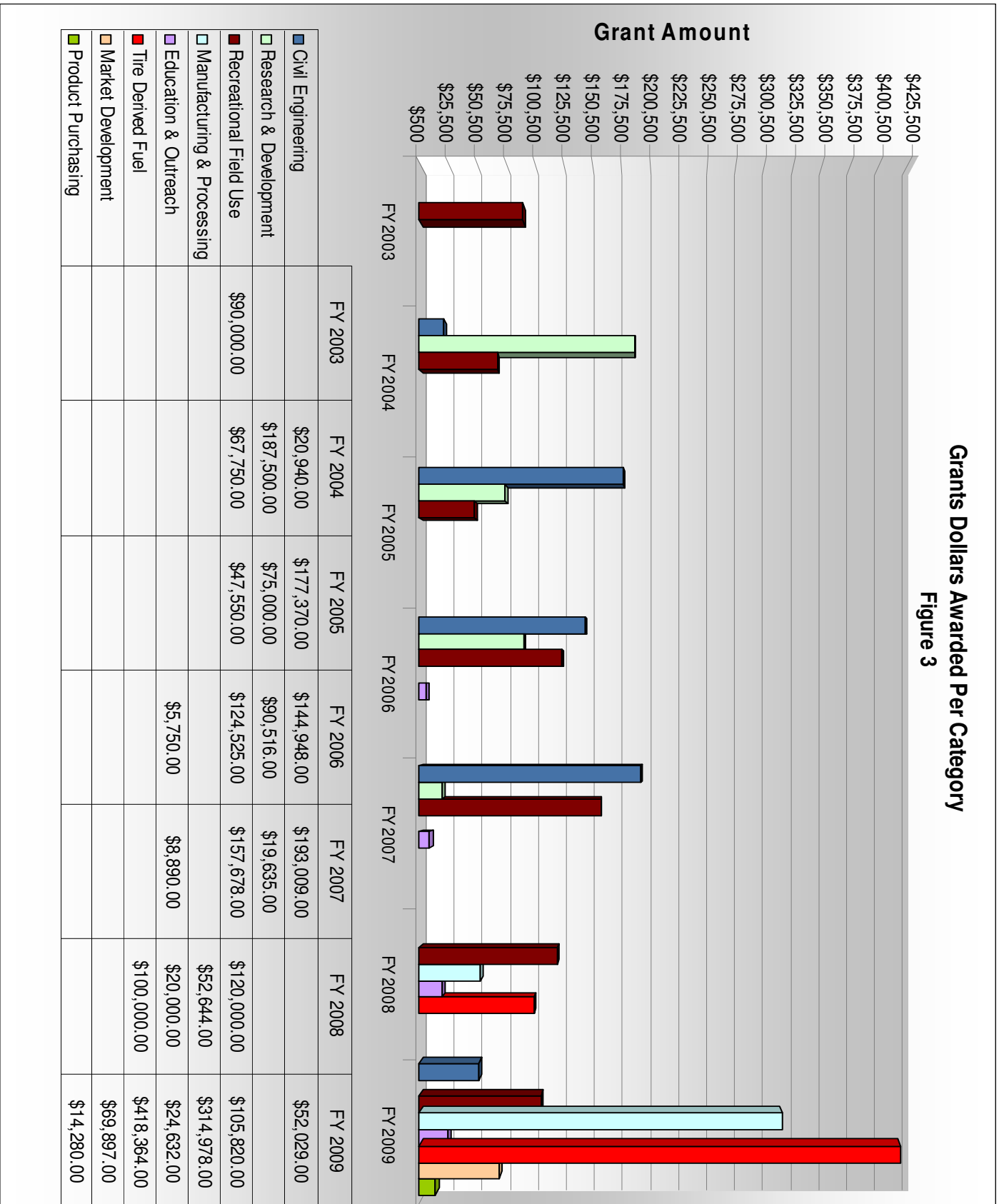
The waste tire management system in Indiana can benefit from continued investment in and development of research and broader-based market development grants, as well as support for cleanups and enforcement authority. Together with other state agencies, lawmakers, industry, and the public, IDEM will work to reduce the number of illegal tire stockpiles in a manner that is protective of human health and the environment for our citizens, while continuing to work toward increasing the use of tire-derived products and developing sustainable markets for waste tires in Indiana.

For more information about waste tires in Indiana and recycling resources, please visit the IDEM website at [www.recycle.in.gov](http://www.recycle.in.gov).

## Appendix A

| Common Waste Tire Violations Pursued Through Enforcement in 2008 |  |
|--|--|
| 329 IAC 15-5-1   | Financial Assurance for Waste Tire Storage Site                                |
| 329 IAC 10-4-2   | Acts Prohibited  |
| 329 IAC 10-4-2 and -3  | Open Dumping   |
| 329 IAC 10-4-3   | Open Dumps Prohibited  |
| 329 IAC 15-3-17(f)   | Failure to Post Adequate Signage   |
| 329 IAC 15-3-17(l)   | Prevented from Accumulating Water  |
| 329 IAC 15-3-18  | Failure to maintain contingency plan   |
| 329 IAC 15-3-2   | Requirement for Waste Tire Storage Sites                                       |
| 329 IAC 15-3-20(b)   | Annual Tire Summary  |
| 329 IAC 15-4-13  | Failure to Properly manifest each load of waste tires                          |
| IC 13-20-13-2  | Waste Tire Site Registration   |
| IC 13-20-14-5.3  | Waste Tire Manifests   |
| IC 13-30-2-1   | NPDES Permit Requirements: May not allow or cause pollution to waters of state |
| IC 13-30-2-1(3), (4), and (5)                                    | Open Dumping   |

**Grants Dollars Awarded Per Category**  
**Figure 3**



## Appendix C

| Funding Awarded in FY2008 through the WTMF |             |              |                             |                          |
|--|-------------|--------------|-----------------------------|--------------------------|
| Grant Recipient                            | County      | Grant Amount | Project Type                | Estimated Tires Diverted |
| Indiana Rural Community Action Association | Statewide   | \$20,000     | Education & Outreach        | N/A                      |
| Consolidated Grain & Barge Company         | Posey       | \$100,000    | Tire Derived Fuel           | 180,000                  |
| J H Rudolph Company                        | Vanderburgh | \$13,240     | Manufacturing or Processing | N/A                      |
| Central Indiana Tire & Retreading, Inc.    | Marion      | \$39,404     | Manufacturing & Processing  | 15,500                   |
| Ferdinand Park & Recreation                | DuBois      | \$30,000     | Recreational Field Use      | 510                      |
| Town of Schererville                       | Lake        | \$30,000     | Recreational Field Use      | 3,125                    |
| Town of Merrillville                       | Lake        | \$30,000     | Recreational Field Use      | 1,763                    |
| City of Crown Point                        | Lake        | \$30,000     | Recreational Field Use      | 2,682                    |



## Appendix D

| Funding Awarded in FY2009 through the WTMF           |            |              |                             |                          |
|--|------------|--------------|-----------------------------|--------------------------|
| Grant Recipient                                      | County     | Grant Amount | Project Type                | Estimated Tires Diverted |
| GDC Inc.   | Elkhart    | \$314,978.00 | Manufacturing or Processing | 2,400,000                |
| Hamilton County Parks and Recreation Department      | Hamilton   | \$30,000.00  | Recreational Field Use      | 3,369                    |
| Long Middendorf Corporation                          | Lake       | \$28,085.00  | Civil Engineering           | 1,739                    |
| Lake Central School Corp. - Bibich Elementary        | Lake       | \$14,280.00  | Product Purchasing          | 1,400                    |
| Board of Commissioners County of Lake                | Lake       | \$14,632.00  | Recreational Field Use      | 625                      |
| Town of Schererville                                 | Lake       | \$21,275.00  | Recreational Field Use      | 1,517                    |
| City of Tell City                                    | Perry      | \$24,632.00  | Education and Outreach      | 2,000                    |
| FIT Tire Recycling and Removal                       | Pike       | \$312,900.00 | Tire Derived Fuel           | 339,000                  |
| Wee Care Child Development Center, Ltd. - Valparaiso | Porter     | \$16,158.00  | Recreational Field Use      | 1,508                    |
| Wee Care Child Development Center, Inc. - Chesterton | Porter     | \$23,755.00  | Recreational Field Use      | 2,405                    |
| Randolph County YMCA                                 | Randolph   | \$23,944.00  | Civil Engineering           | 575                      |
| Eco-Blok, LLC  | St. Joseph | \$69,897.00  | Market Development          | 250,000                  |
| Liberty Tire Services of Ohio, LLC                   | St. Joseph | \$105,464.00 | Tire Derived Fuel           | 1,000,000                |